

SOLICITATION PACKAGE  
SP0600-03-R-0301

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SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30				1. REQUISITION NUMBER <b>SEE SCHEDULE</b>		Page 1 of 26	
2. CONTRACT NUMBER		3. AWARD/EFFECTIVE DATE		4. ORDER NUMBER		5. SOLICITATION NUMBER <b>SP0600-03-R-0301</b>	
6. SOLICITATION ISSUE DATE <b>08 NOV 2002</b>		7. FOR SOLICITATION INFORMATION CALL: <b>BARBARA J BLACKSHERE</b>		8. OFFER DUE DATE/ <b>03 DEC 2002 @ 2:00 P.M. CENTRAL TIME</b>			
9. ISSUED BY <b>DESC-MK</b>		CODE <b>SP0600</b>		10. THIS ACQUISITION IS <input checked="" type="checkbox"/> UNRESTRICTED <input type="checkbox"/> SET ASIDE % FOR <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> SMALL DISADV BUSINESS <input type="checkbox"/> 8(A)  SIC: <b>325120</b> SIZE STANDARD: <b>1,000</b>		11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE 13a. THIS CONTRACT IS RATED ORDER UNDER DPAS (15 CFR 700) 13b. RATING <b>DO A20</b> 14. METHOD OF SOLICITATION <input type="checkbox"/> RFQ <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP	
12. DISCOUNT TERMS							
15. DELIVER TO <b>DEFENSE ENERGY SUPPORT CENTER (San Antonio)</b> <b>DESC-MK, BLDG 1621-K, 2261 Hughes Ave Suite 128</b> <b>Lackland AFB TX 78236-9828</b> <b>BUYER/SYMBOL: Barbara J Blackshere / DESC-MK</b> <b>PHONE: 210-925-2427 FAX: 210-925-9758</b> <b>E-Mail: <a href="mailto:bblackshere@desc.dla.mil">bblackshere@desc.dla.mil</a></b>				16. ADMINISTERED BY <b>SEE BLOCK 9</b>			
17a. CONTRACTOR / OFFEROR CODE		FACILITY CODE		18a. PAYMENT WILL BE MADE BY CODE <b>SC0600</b> <b>DFAS COLUMBUS CENTER</b> <b>ATTN: DFAS-BVDDB (MISSILE FUELS)</b> <b>P O BOX 182317</b> <b>COLUMBUS, OHIO 43218-6250</b>			
TELEPHONE NO.		FAX NO.		18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
19. ITEM NO.				20. SCHEDULE OF SUPPLIES/SERVICES <b>SEE ATTACHED SCHEDULE B</b>		21. QUANTITY	
						22. UNIT	
						23. UNIT PRICE	
						24. AMOUNT	
25. ACCOUNTING AND APPROPRIATION DATA <b>TO BE CITED ON EACH DELIVERY ORDER</b>						26. TOTAL AWARD AMOUNT	
<input checked="" type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED. <input type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.							
<input checked="" type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN <u>1</u> COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS AND CONDITIONS SPECIFIED HEREIN.				<input type="checkbox"/> 29. AWARD OF CONTRACT: REFERENCE <u>      </u> OFFER DATED <u>      </u> . YOUR OFFER ON SOLICITATION* (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS: <u>SEE PAGE 2.</u>			
30a. SIGNATURE OF OFFEROR/CONTRACTOR				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)			
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT)		30c. DATE SIGNED		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) <b>ROBERT L MAYFIELD</b>		31c. DATE SIGNED	
32a. QUANTITY IN COLUMN 21 HAS BEEN <input type="checkbox"/> RECEIVED <input type="checkbox"/> INSPECTED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED				33. SHIP NUMBER		34. VOUCHER NUMBER	
				<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		35. AMOUNT VERIFIED CORRECT FOR	
32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE		32c. DATE		36. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		37. CHECK NUMBER	
				38. S/R ACCOUNT NUMBER		39. S/R VOUCHER NUMBER	
41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT				40. PAID BY			
41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER		41c. DATE		42a. RECEIVED BY (Print)			
				42b. RECEIVED AT (Location)			
				42c. DATE REC'D (YY/MM/DD)		42d. TOTAL CONTAINERS	

**THE SCHEDULE  
SECTION B  
SUPPLIES AND/OR SERVICES**

**IMPORTANT NOTICES:**

1. This solicitation is for the production and delivery of Liquid Nitrogen in accordance with Schedule B. Contractor's facility shall be available for product delivery to customers to commence 01 Feb 2003.
2. The Government plans to award a Firm Fixed Price, fifty-eight months Requirements type contract for the supplies and services specified in the schedule. The requirement was synopsisized stating that the Government contemplated the award of a fixed priced requirements type contract with an economic price adjustment (EPA) clause, but after extensive market research, it has been determined that a Firm Fixed Price contract will be awarded by the government as a result of this solicitation. It is the Government's understanding that electricity prices in PA, whether from utility via a default rate or from a third party supplier, can be fixed for a long term period. As such, proposing firm fixed prices should not result in risks to the offerors.
3. The fifty-eight month Best Estimated Quantity (BEQ) will be used in evaluation of the proposals.
4. Facsimile proposals are authorized for this solicitation in accordance with Clause L2.11-2 and shall be followed with a hardcopy by mail.
5. Central Contractor Registration (CCR) is required and is available at [www.ccr.gov/index.cfm](http://www.ccr.gov/index.cfm) or (888) 352-9333 #3.
6. Unless you specifically state otherwise, your offer is assumed to accept all terms and conditions of this solicitation. Any exceptions to any part of this solicitation must be specifically identified in a cover letter to your proposal. Any exception taken by the offeror will be considered by the Government and either accepted or rejected. Exceptions that are accepted by the Government will be incorporated into any resultant contract; exceptions that are rejected by the Government must be withdrawn by the offeror or the offer will be rejected. Offerors must propose on all line items in order for their proposal to be considered.
7. Any offer determined to be outside the competitive range for this procurement will not be included in the negotiations nor evaluated or considered for award of the contract. Therefore, each initial offer should be submitted in good faith with the most favorable terms from a price and technical standpoint. Award will be made to the responsible offer whose offer conforming to the essential requirements of the solicitation represents the best value to the Government, price and other factors considered.
8. Any award to a contractor who, at the time of award, was suspended, debarred or ineligible for receipt of contracts with Government agency is voidable at the option of the Government.
9. Your questions regarding small business affairs should be addressed to Mrs. Kathy Williams of the DESC Small Business Office at 1-800-526-2601 or 703-767-9400.

**THE SCHEDULE  
SECTION B  
SUPPLIES OR SERVICES AND PRICES/COSTS**

<u>ITEM</u>	<u>SUPPLIES/SERVICES</u>	<u>ANNUAL BEQ</u>	<u>UNIT PRICE</u>	<u>TOTAL AMT</u>
0001	LIQUID NITROGEN, TYPE II, GRADE B IAW MIL-PRF-27401D, 03 Oct 1995 NSN: 9135-00-965-2526 FOB: DESTINATION			
0001AA	YEAR ONE (01 FEB 03 - 31 JAN 04)	7,054 TN	\$ _____	\$ _____
0001AB	YEAR TWO (01 FEB 04 – 31 JAN 05)	9,637 TN	\$ _____	\$ _____
0001AC	YEAR THREE (01 FEB 05 – 31 JAN 06)	9,646 TN	\$ _____	\$ _____
0001AD	YEAR FOUR (01 FEB 06 – 31 JAN 07)	6,794 TN	\$ _____	\$ _____
<b><u>10 MONTH BEQ</u></b>				
0001AE	YEAR FIVE (01 FEB 07 – 30 NOV 07)	5,012 TN	\$ _____	\$ _____
0002	SERVICES Line Item established in accordance with #9 of Statement of Objectives, “Delay and Standby Time”	PER ¼ HR	\$ _____	XXXXXXX
0003	SERVICES TANK LEASE Line Item established in support of Line Item 0001, NSN: 9135-00-965-2526 This is the monthly cost for equipment required and negotiated by the Contracting Officer.	PER MO	\$ _____	XXXXXXX

**SHIP TO/MARK FOR:**

**SHIP PRODUCT TO:**

Lockheed Martin  
ATTN: John Materniak  
Route 413  
Newtown, PA 18940-1784

(215) 497-2776

MARK FOR: Block 14 of each DD Form 250 will reflect the customer's company name and address, as cited on each Propellant Delivery Schedule.

**B40 ATTACHMENTS AND LIST OF ADDENDA -- COMMERCIAL ITEMS (MISSILE FUELS) (DESC SEP 2002)**

(a) FAR 52.212-3, FAR 52.212-5, and DFARS 252.212-7001 are incorporated herein.

**(b) LIST OF ADDENDA.****(1) ADDENDUM TO FAR 52.212-4, CONTRACT TERMS AND CONDITIONS -- COMMERCIAL ITEMS.**

**SECTION C -- DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**

**SECTION D -- PACKAGING AND MARKING**

**SECTION E -- INSPECTION AND ACCEPTANCE**

**SECTION F -- DELIVERY AND PERFORMANCE**

**SECTION G -- CONTRACT ADMINISTRATION DATA**

**SECTION H -- SPECIAL CONTRACT REQUIREMENTS**

**SECTION I -- CONTRACT CLAUSES (WITH THE EXCEPTION OF FAR 52.212-5 AND DFARS 252.212-7001)**

**SECTION J -- LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**

**(2) ADDENDUM TO FAR 52.212-1. SECTION L -- INSTRUCTIONS TO OFFERORS -- COMMERCIAL ITEMS.****(3) ADDENDUM TO FAR 52.212-2. SECTION M -- EVALUATION OF OFFERORS -- COMMERCIAL ITEMS.**  
(DESC 52.212-9F01)**THE SCHEDULE****SECTION C****DESCRIPTION/SPECIFICATIONS****SPECIFICATIONS, STANDARDS AND DRAWINGS****C1.01 SPECIFICATIONS (DESC APR 1984)**

Product(s) to be supplied shall fully meet the requirements of the applicable specification(s).

(DESC 52.246-9FU1)

ITEM NR

SPECIFICATION, STANDARDS AND/OR ATTACHMENTS

**0001**

**MIL-PRF-27401D, dated 03 Oct 1995**

**C1.02 DODISS SPECIFICATIONS (DESC OCT 2000)**

Unless otherwise specified, the issues of Federal and Military specifications, standards, and related standardization documents and those non-Government standards adopted for Department of Defense use, which are cited in this solicitation/contract, are those listed in the most recent Department of Defense Index of Specifications and Standards (DODISS) and any applicable supplement. The basic DODISS is issued on July 1st every year; supplementals thereto are issued every other month thereafter, those dates being September 1<sup>st</sup>, November 1<sup>st</sup>, January 1<sup>st</sup>, March 1<sup>st</sup>, and May 1<sup>st</sup>.

(DESC 52.246-9FT1)

**THE SCHEDULE****SECTION D****PACKAGING AND MARKING**

**(SEE STATEMENT OF OBJECTIVES )**

**THE SCHEDULE****SECTION E****INSPECTION AND ACCEPTANCE****E1.15 CONTRACTOR INSPECTION RESPONSIBILITIES (PROPELLANTS, CRYOGENICS AND GASES) (MISSILE FUELS) (DESC SEP 2002)****(a) QUALITY CONTROL PLAN.**

(1) The Contractor shall provide and maintain an inspection system and a written description (Quality Control Plan (QCP)) acceptable to the Government. The Contractor has the option to provide and maintain an inspection system that, as a minimum, incorporates the requirements of: Q91 (ISO9001) Quality Systems - Model for Quality Assurance in Design/Development, Production Installation, and Servicing, or Q92 (ISO9002) Quality Systems - Model for Quality Assurance in Production and Installation. If the Contractor chooses to comply with Q91 or

Q92 quality system format, all the specific Quality Assurance Provisions of this contract must be included in the Q91, Q92 written quality plan. The QCP shall be established and reviewed for adequacy by the Quality Representative (QR) prior to commencement of production or services. The copy of the QCP provided to the QR shall be in English. An acceptable QCP is required prior to Government inspection and acceptance of supplies or services. The QCP shall be reviewed and updated when deemed necessary. It will be updated anytime that changes are made to the inspection system or as identified by quality problems. The Contractor must sign and date each revision to the QCP and require subcontractors to sign and date each revision to the subcontractor's QCP.

(2) The Contractor shall require subcontractors (unless otherwise instructed by the Government) to provide and maintain inspection systems and QCPs that are acceptable to the Government.

(3) The QCP shall include an identification of key operational positions, a schematic diagram of plant facilities pertinent to the inspection system indicating all inspection points, and a description covering the following operations relating to the supplies to be furnished under the contract:

(i) **SAMPLING. Procedures for sampling.** Procedures include location of sample taken, frequency, quantity, minimum tests required on sample, and sample retention procedures.

(ii) **TESTING.** Types of tests and test methods/procedures to be performed on samples taken from each location identified in (i) above, and may be incorporated by test method reference in the QCP, if complete reference is available at the place of performance.

(iii) **CALIBRATION.** Program for testing and measuring equipment in accordance with ISO 10012-1, "Quality Assurance Requirements for Measuring Equipment, Part 1", or equivalent local regulation, as appropriate. A program for meters and scales used for determining quantity complying with local regulation or the applicable manufacturer's recommended calibration method, or methods outlined in the applicable industry publication, shall be used if acceptable to the Government;

(iv) **STORAGE AND HANDLING.** Procedures for quality determination and maintenance of physical equipment necessary to ensure product integrity. Includes a description of storage and handling equipment including tanks, lines, valves, and manifolds used and identification of any other process/system used in maintaining product integrity during storage and handling;

(v) **LOADING AND SHIPPING, GENERAL.** Procedures for product movement and related quality/quantity checks from shipping tank(s) to custody transfer point in order to maintain product integrity. Provide description of transfer system from shipping tank to transfer point in order to maintain product integrity.

(vi) **RECORDS AND REPORTS.** To include at a minimum, test reports on product, calibration documents, and the DD Forms 250. These records and reports will include by whom, where, and how prepared, and retention information.

(vii) **CORRECTIVE ACTION.** Actions to be followed to effect correction of any deficiency affecting product quality or quantity determination, such as handling of off-specification product (waivers, conveyance rejections, etc.). The corrective action procedures shall include notification of the QR.

(4) The QCP shall identify one individual to serve as a point of contact for quality/quantity matters relating to the inspection system described in the plan.

(5) The Contractor is responsible for all inspection systems, QCPs, and product quality and quantity.

(6) The Government QR will be available to review and discuss the Contractor's proposed QCP; however, the Contractor shall remain responsible for developing and describing acceptable quality control procedures.

(b) The Contractor shall perform all inspection tests required by the item description of the supplies to be furnished under this contract or shall have such tests performed in a laboratory acceptable to the Government. When such tests are performed at origin on supplies to be accepted at destination, documentation that will enable verification of the original test results shall be provided to the Government at the time of acceptance.

(c) The Contractor shall keep all quality and quantity records, including DD Form 250 documents, complete and available to the Government during the performance of this contract and for three years after final payment under this contract.

(d) Immediately following award of this contract, the Contractor shall notify the QR of the source or sources of the supplies to be furnished under any item calling for delivery f.o.b. destination. The Contractor shall also notify the QR of any changes in source in sufficient time to permit inspection by the Government.

(e) The inspection system and related operations provided or performed pursuant to this clause shall be subject to surveillance by the QR.

(f) Prior to shipping containers/conveyances filled under this contract, the Contractor shall perform quality conformance testing in accordance with the applicable specification/item description cited in this contract. The container/conveyance shall not be shipped prior to conducting all tests and confirming that the product fully meets the limits established in the chemical and physical properties table of the item description. The Contractor shall notify the assigned QR in sufficient time to permit inspection by the Government.

(DESC 52.246-9FE2)

### **E3 CERTIFICATE OF CONFORMANCE (APR 1984)**

(a) When authorized in writing by the cognizant Contract Administration Office (CAO), the Contractor shall ship with a Certificate of Conformance any supplies for which the contract would otherwise require inspection at source. In no case shall the Government's right to inspect supplies under the inspection provisions of this contract be prejudiced. Shipments of such supplies will not be made under this contract until use of the Certificate of Conformance has been authorized in writing by the CAO, or inspection and acceptance have occurred.

(b) The Contractor's signed certificate shall be attached to or included on the top copy of the inspection or receiving report distributed to the payment office or attached to the CAO copy when contract administration (Block 10 of the DD Form 250) is performed by the Defense Contract Administration Services. In addition, a copy of the signed certificate shall also be attached to or entered on copies of the inspection or receiving report accompanying the shipment.



(c) The Government has the right to reject defective supplies or services within a reasonable time after delivery by written notification to the Contractor. The Contractor shall in such event promptly replace, correct, or repair the rejected supplies or services at the Contractor's expense.

(d) The certificate shall read as follows:

"I certify that on \_\_\_\_\_ [insert date], the \_\_\_\_\_ [insert Contractor's name] furnished the supplies or services called for by Contract No. \_\_\_\_\_ via \_\_\_\_\_ [Carrier] on \_\_\_\_\_ [identify the bill of lading or shipping document] in accordance with all applicable requirements. I further certify that the supplies or services are of the quality specified and conform in all respects with the contract requirements, including specifications, drawings, preservation, packaging, packing, marking requirements, and physical item identification (part number), and are in the quantity shown on this or on the attached acceptance document."

Date of Execution: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

(FAR 52.246-15)

#### **E5 INSPECTION OF SUPPLIES - FIXED-PRICE (AUG 1996)**

(a) **DEFINITION. Supplies**, as used in this clause, includes but is not limited to raw materials, components, intermediate assemblies, end products, and lots of supplies.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering supplies under this contract and shall tender to the Government, for acceptance, only supplies that have been inspected in accordance with the inspection system and have been found by the Contractor to be in conformity with contract requirements. As part of the system, the Contractor shall prepare records evidencing all inspections made under the system and the outcome. These records shall be kept complete and made available to the Government during contract performance and for as long afterwards as the contract requires. The Government may perform reviews and evaluations as reasonably necessary to ascertain compliance with this paragraph. These reviews and evaluations shall be conducted in a manner that will not unduly delay the contract work. The right of review, whether exercised or not, does not relieve the Contractor of the obligations under the contract.

(c) The Government has the right to inspect and test all supplies called for by the contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event before acceptance. The Government shall perform inspections and tests in a manner that will not unduly delay the work. The Government assumes no contractual obligation to perform any inspection and test for the benefit of the Contractor unless specifically set forth elsewhere in this contract.

(d) If the Government performs inspection or test on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the contract, the Government shall bear the expense of Government inspections or tests made at other than the Contractor's or subcontractor's premises; PROVIDED, that in case of rejection, the Government shall not be liable for any reduction in the value of inspection or test samples.

(e) (1) When supplies are not ready at the time specified by the Contractor for inspection or test, the Contracting Officer may charge to the Contractor the additional cost of inspection or test.

(2) The Contracting Officer may also charge the Contractor for any additional cost of inspection or test when prior rejection makes reinspection or retest necessary.

(f) The Government has the right either to reject or to require correction of nonconforming supplies. Supplies are nonconforming when they are defective in material or workmanship or are otherwise not in conformity with contract requirements. The Government may reject nonconforming supplies with or without disposition instructions.

(g) The Contractor shall remove supplies rejected or required to be corrected. However, the Contracting Officer may require or permit correction in place, promptly after notice, by and at the expense of the Contractor. The Contractor shall not tender for acceptance corrected or rejected supplies without disclosing the former rejection or requirement for correction, and, when required, shall disclose the corrective action taken.

(h) If the Contractor fails to promptly remove, replace, or correct rejected supplies that are required to be removed or to be replaced or corrected, the Government may either (1) by contract or otherwise, remove, replace, or correct the supplies and charge the cost to the Contractor or (2) terminate the contract for default. Unless the Contractor corrects or replaces the supplies within the delivery schedule, the Contracting Officer may require their delivery and make an equitable price reduction. Failure to agree to a price reduction shall be a dispute.

(i) (1) If this contract provides for the performance of Government quality assurance at source, and if requested by the Government, the Contractor shall furnish advance notification of the time (i) when Contractor inspection or tests will be performed in accordance with the terms and conditions of the contract and (ii) when the supplies will be ready for Government inspection.

(2) The Government's request shall specify the period and method of the advance notification and the Government representative to whom it shall be furnished. Requests shall not require more than 2 workdays of advance notification if the Government representative is in residence in the Contractor's plant, nor more than 7 workdays in other instances.

(j) The Government shall accept or reject supplies as promptly as practicable after delivery, unless otherwise provided in the contract. Government failure to inspect and accept or reject the supplies shall not relieve the Contractor from responsibility, nor impose liability on the Government, for nonconforming supplies.

(k) Inspections and tests by the Government do not relieve the Contractor of responsibility for defects or other failures to meet contract requirements discovered before acceptance. Acceptance shall be conclusive, except for latent defects, fraud, gross mistakes amounting to fraud, or as otherwise provided in the contract.

(l) If acceptance is not conclusive for any of the reasons in paragraph (k) hereof, the Government, in addition to any other rights and remedies provided by law, or under other provisions of this contract, shall have the right to require the Contractor (1) at no increase in contract price, to correct or replace the defective or nonconforming supplies at the original point of delivery or at the Contractor's plant at the Contracting Officer's election, and in accordance with a reasonable delivery schedule as may be agreed upon between the Contractor and the Contracting Officer; PROVIDED, that the Contracting Officer may require a reduction in contract price if the Contractor fails to meet such delivery schedule, or (2) within a reasonable time after receipt by the Contractor of notice of defects or nonconformance, to repay such portion of the contract as is equitable under the circumstances if the Contracting Officer elects not to require correction or replacement. When supplies are returned to the Contractor, the Contractor shall bear the transportation cost from the original point of delivery to the Contractor's plant and return to the original point when that point is not the Contractor's plant. If the Contractor fails to perform or act as required in (1) or (2) above and does not cure such failure within a period of 10 days (or such longer period as the Contracting Officer may authorize in writing) after receipt of notice from the Contracting Officer specifying such failure, the Government shall have the right by contract or otherwise to replace or correct such supplies and charge to the Contractor the cost occasioned the Government thereby.

(FAR 52.246-2)

#### **E12 POINT OF ACCEPTANCE (DESC MAY 1969)**

On f.o.b. origin deliveries, acceptance of the supplies furnished hereunder will take place at origin, notwithstanding that inspection by the Government may take place elsewhere prior to acceptance. On f.o.b. destination deliveries, acceptance of the supplies furnished hereunder will take place at destination, notwithstanding that inspection by the Government may take place elsewhere prior to acceptance. (DESC 52.246-9FQ1)

#### **E22.01 QUALITY REPRESENTATIVE (DESC JUL 1992)**

The Quality Office assigned inspection responsibility under this contract is **TO BE NAMED UPON CONTRACT AWARD.**  
(DESC 52.246-9F35)

#### **E33.07 MANUFACTURING AND FILLING POINTS (DESC FEB 1968)**

The name and complete addresses of the manufacturing and filling points for each product to be furnished hereunder are as follows:

<u>PRODUCT</u>	<u>NAME AND COMPLETE ADDRESS MANUFACTURING POINT - FILLING POINT</u>
----------------	--

**Liquid Nitrogen, Type II, Grade B**  
**IAW MIL-PRF-27401D dated 03 Oct 95**

#### **THE SCHEDULE SECTION F DELIVERIES OR PERFORMANCE**

#### **F1.36 DETERMINATION OF QUANTITY (PROPELLANTS, CRYOGENICS AND GASES) (MISSILE FUELS) (DESC SEP 2002)**

(a) **QUANTITY.** The quantity of supplies furnished under this contract shall be determined according to one of the following methods:

- (1) Calibrated flow meter; or
- (2) Weight using calibrated scales.

The Government has the right to have a representative present to witness the measurement of quantity.

(b) **MEASUREMENT STANDARDS.** Weight scales used in determining net shipping volumes shall be certified as calibrated within frequency required by local regulation. If no local regulation exists, the frequency of calibration shall be conducted in accordance with weight scale manufacturer recommendation or every six months, whichever is more frequent. All flow meters used in determining product volume shall be calibrated by frequency required by local regulation (foreign or domestic). If no local regulation exists, then the frequency of calibration shall be that recommended by the meter manufacturer or every six months, whichever is more frequent. The net quantity shipped shall be reported in Block 17 on the DD Form 250.

(DESC 52.211-9FB6)

#### **F4 DELIVERY AND ORDERING PERIODS (DESC AUG 1976)**

(a) The period of this contract during which the Ordering Officer may order and the Contractor shall deliver, if ordered, will be as follows unless the Schedule specifies otherwise:

- (1) Ordering period begins: Date of Award and ends: 30 NOV 2007.
- (2) Delivery period begins: 01 FEB 03 and ends: 30 days after end of ordering period.

(b) Notwithstanding the foregoing, deliveries prior to the delivery period, made at the option of the Contractor and pursuant to an order by the Government, shall be deemed to have been made under this contract at the applicable contract price(s).

(DESC 52.242-9F75)

#### **F105 VARIATION IN QUANTITY (APR 1984)**

(a) A variation in the quantity of any item called for by this contract will not be accepted unless the variation has been caused by conditions of loading, shipping, or packing, or allowances in manufacturing processes, and then only to the extent, if any, specified in paragraph (b) below.

(b) The permissible variation shall be limited to--

10% Percent increase

10% Percent decrease

This increase or decrease shall apply to Line Item: 0001.

(FAR 52.211-16)

#### **F108 DELIVERY OF EXCESS QUANTITIES (SEP 1989)**

The Contractor is responsible for the delivery of each item quantity within allowable variations, if any. If the Contractor delivers and the Government receives quantities of any item in excess of the quantity called for (after considering any allowable variation in quantity), such excess quantities will be treated as being delivered for the convenience of the Contractor. The Government may retain such excess quantities up to \$250 in value without compensating the Contractor therefore, and the Contractor waives all right, title, or interests therein. Quantities in excess of \$250 will, at the option of the Government, either be returned at the Contractor's expense or retained and paid for by the Government at the contract unit price.

(FAR 52.211-17)

### **THE SCHEDULE SECTION G CONTRACT ADMINISTRATION DATA**

#### **G3.01 PAYMENT DUE DATE (DESC OCT 1988)**

When payment due date falls on a Saturday or Sunday, or on a United States Official Federal holiday, payment will be due and payable on the following workday.

(DESC 52.232-9F45)

### **PART I – THE SCHEDULE SECTION H SPECIAL CONTRACT REQUIREMENTS**

**SOLICITATION/CONTRACT CLAUSES**  
**SECTION I**

**11.04 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS - COMMERCIAL ITEMS (DEC 2001)**

(a) The Contractor shall comply with the following FAR clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

- (1) 52.222-3, Convict Labor (E.O. 11755);
- (2) 52.233-3, Protest After Award (31 U.S.C. 3553).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b), that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items or components:

☒ 52.203-6, Restrictions on Subcontractor Sales to the Government, with Alternate I (41 U.S.C. 253g and 10 U.S.C. 2402).

☐ 52.219-3, Notice of Total HUBZone Set-Aside (Jan 1999).

☐ 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (Jan 1999) (if the offeror elects to waive the preference, it shall so indicate in its offer).

☐ 52.219-5, Very Small Business Set-Aside (Pub. L. 103-403, section 304, Small Business Reauthorization and Amendments Act of 1994). ☐ Alt I. ☐ Alt II.

☒ 52.219-8, Utilization of Small Business Concerns (15 U.S.C. 637(d)(2) and (3)).

☒ 52.219-9, Small Business Subcontracting Plan (15 U.S.C. 637 (d)(4)).

☐ 52.219-14, Limitations on Subcontracting (15 U.S.C. 637(a)(14)).

☐ 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer). ☐ Alt I.

☐ 52.219-25, Small Disadvantaged Business Participation Program - Disadvantaged Status and Reporting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

☐ 52.219-26, Small Disadvantaged Business Participation Program - Incentive Subcontracting (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).

☒ 52.222-19, Child Labor – Cooperation with Authorities and Remedies (E.O. 13126).

☒ 52.222-21, Prohibition of Segregated Facilities (Feb 1999).

☒ 52.222-26, Equal Opportunity (E.O. 11246).

☒ 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212).

☒ 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).

☒ 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (38 U.S.C. 4212).

☐ 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (42 U.S.C. 6962(c)(3)(A)(ii)). ☐ Alt I (42 U.S.C. 6962(i)(2)(C)).

☐ 52.225-1, Buy American Act - Balance of Payments Program - Supplies (41 U.S.C. 10a - 10d).

☐ 52.225-3, Buy American Act - North American Free Trade Agreement - Israeli Trade Act - Balance of Payments Program (41 U.S.C 10a - 10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note). ☐ Alt I. ☐ Alt II.

- ☒ 52.225-5, Trade Agreements (19 U.S.C 2501, et seq., 19 U.S.C. 3301 note).
- ☒ 52.225-13, Restriction on Certain Foreign Purchases (E.O.'s 12722, 12724, 13059, 13067; 13121, and 13129).
- ☐ 52.225-15, Sanctioned European Union Country End Products (E.O. 12849).
- ☐ 52.225-16, Sanctioned European Union Country Services (E.O. 12849).
- ☒ 52.232-33, Payment by Electronic Funds Transfer -- Central Contractor Registration (31 U.S.C. 3332).
- ☒ 52.232-34, Payment by Electronic Funds Transfer -- Other than Central Contractor Registration (31 U.S.C. 3332).
- ☐ 52.232-36, Payment by Third Party (31 U.S.C. 3332).
- ☐ 52.239-1, Privacy or Security Safeguards (5 U.S.C. 552a).
- ☐ 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241). ☐ Alt I.

(c) The Contractor shall comply with FAR clauses in this paragraph (c), applicable to commercial services, which the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components:

**[Contracting Officer must check as appropriate.]**

- ☐ 52.222-41, Service Contract Act of 1965, as amended (41 U.S.C. 351, et seq.).

**Subcontracts for certain commercial services may be exempt from coverage if they meet the criteria in FAR 22.1103-4(c) or (d) (see DoD Class Deviation number 2000-O0006).**

- ☐ 52.222-42, Statement of Equivalent Rates for Federal Hires (29 U.S.C. 206 and 41 U.S.C. 351 et seq.).
- ☐ 52.222-43, Fair Labor Standards Act and Service Contract Act - Price Adjustment (Multiple Year and Option Contracts) (29 U.S.C. 206 and 41 U.S.C. 351 et seq.).
- ☐ 52.222-44, Fair Labor Standards Act and Service Contract Act - Price Adjustment (29 U.S.C. 206 and 41 U.S.C. 351 et seq.).
- ☐ 52.222-47, SCA Minimum Wages and Fringe Benefits Applicable to Successor Contract Pursuant to Predecessor Contractor Collective Bargaining Agreement (CBA) (41 U.S.C. 351 et seq.).

(d) **COMPTROLLER GENERAL EXAMINATION OF RECORD.** The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, AUDIT AND RECORDS - NEGOTIATION.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the DISPUTES clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c) and (d) of this clause, the Contractor is not required to include any FAR clause, other than those listed below (and as may be required by any addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components:

52.222-26, Equal Opportunity (E.O. 11246);

52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans, (38 U.S.C. 4212); and

52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793).

52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (46 U.S.C. 1241) (flow down not required for subcontracts awarded beginning May 1, 1996).

(FAR 52.212-5)

#### **II.05 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS (NOV 2001)**

(a) The Contractor agrees to comply with the following Federal Acquisition Regulation (FAR) clause which, if checked, is included in this contract by reference to implement a provision of law applicable to acquisitions of commercial items or components.

☒ 52.203-3 Gratuities (APR 1984) (10 U.S.C. 2207)

(b) The Contractor agrees to comply with any clause that is checked on the following list of Defense FAR Supplement clauses which, if checked, is included in this contract by reference to implement provisions of law or executive orders applicable to acquisitions of commercial items or components.

☒ 252.205-7000 Provision of Information to Cooperative Agreement Holders (DEC 1991) (10 U.S.C. 2416).

☐ 252.206-7000 Domestic Source Restriction (DEC 1991) (10 U.S.C. 2304).

☒ 252.219-7003 Small, Small Disadvantaged, and Women-Owned Small Business Subcontracting Plan (DoD Contracts) (APR 1996) (15 U.S.C. 637).

☐ 252.219-7004 Small, Small Disadvantaged, and Women-Owned Small Business Subcontracting Plan (Test Program) (JUN 1997) (15 U.S.C. 637 note).

☒ 252.225-7001 Buy American Act and Balance of Payments Program (MAR 1998) (41 U.S.C. 10a-10d, E.O. 10582).

☒ 252.225-7007 Buy American Act -Trade Agreements Act - Balance of Payments Program (SEP 2001) (41 U.S.C. 10a-10d, 19 U.S.C. 2501-2518, and 19 U.S.C. 3301 note).

☐ 252.225-7012 Preference for Certain Domestic Commodities (AUG 2000) (10 U.S.C. 2241 note).

☐ 252.225-7014 Preference for Domestic Specialty Metals (MAR 1998) (10 U.S.C. 2241 note).

☐ 252.225-7015 Preference for Domestic Hand or Measuring Tools (DEC 1991) (10 U.S.C. 2241 note).

☐ 252.225-7016 Restriction on Acquisition of Ball and Roller Bearings (DEC 2000); ([ ] Alternate I (DEC 2000)) (Section 8064 of Pub. L. 106-259).

☐ 252.225-7021 Trade Agreements (SEP 2001) (19 U.S.C. 2501-2518 and 19 U.S.C. 3301 note).

☐ 252.225-7027 Restriction on Contingent Fees for Foreign Military Sales (MAR 1998) (22 U.S.C. 2779).

☐ 252.225-7028 Exclusionary Policies and Practices of Foreign Governments (DEC 1991) (22 U.S.C. 2755).

☐ 252.225-7029 Preference for United States or Canadian Air Circuit Breakers (AUG 1998) (10 U.S.C. 2534(a)93).

☐ 252.225-7036 Buy American Act - North American Free Trade Agreement Implementation Act - Balance of Payments Program (MAR 1998); ([ ] Alternate I (SEP 1999)) (41 U.S.C. 10a-10d and 19 U.S.C. 3301 note).

☐ 252.227-7015 Technical Data-- Commercial Items (NOV 1995) (10 U.S.C. 2320).

☐ 252.227-7037 Validation of Restrictive Markings on Technical Data (SEP 1999) (10 U.S.C. 2321).

☒ 252.243-7002 Requests for Equitable Adjustment (MAR 1998) (10 U.S.C. 2410).

- [ X ] 252.247-7023 Transportation of Supplies by Sea (MAR 2000); ( [ ] Alternate I (MAR 2000));  
 ( [ ] Alternate II (MAR 2000)) (10 U.S.C. 2631).
- [ ] 252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631).

(c) In addition to the clauses listed in paragraph (e) of the CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS -- COMMERCIAL ITEMS clause of this contract (FAR 52.212-5), the Contractor shall include the terms of the following clauses, if applicable, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:

- [ ] 252.225-7014 Preference for Domestic Specialty Metals, Alternate I (MAR 1998) (10 U.S.C. 2241 note).
- [ ] 252.247-7023 Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631).
- [ ] 252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631).

(DFARS 252.212-7001)

## 11.07 REQUIRED CENTRAL CONTRACTOR REGISTRATION (NOV 2001)

(a) **DEFINITIONS.** As used in this clause--

(1) **Central Contractor Registration (CCR) database** means the primary DoD repository for Contractor information required for the conduct of business with DoD.

(2) **Data Universal Numbering Systems (DUNS) number** means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) **Data Universal Numbering System + 4 (DUNS+4) number** means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) **Registered in the CCR database** means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b) (1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423 or via the Internet at <http://www.ccr.gov>.

(DFARS 252.204-7004)

## 11.20-1 CLAUSES AND PROVISIONS INCORPORATED BY REFERENCE (DESC NOV 1999)

(a) This clause incorporates contract clauses and solicitation provisions by reference with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

(b) The full text of any FAR, DFARS, or DLAD solicitation clause or provision may be accessed electronically at these addresses:

FAR/DFARS: <http://farsite.hill.af.mil>  
 FAR/DFARS: <http://www-far.npr.gov>  
 DLAD: <http://www.procregs.hq.dla.mil/icps.htm>

(c) All **DESC** clauses and provisions are contained in full text in this document.

(d) **Solicitation Provisions Only.** The offeror is cautioned that the solicitation provisions listed in (e)(1) below may include blocks that must be completed by the offeror and submitted with its quotation or offer. As long as the offeror identifies the solicitation provision by number, the offeror may simply complete those paragraphs requiring fill-in information to submit with its quotation or offer. In addition to the solicitation

provisions listed in (e)(1) below, the contract clauses listed in (e)(2) below shall apply to any resultant contract but do not require the submission of additional offer information.

(e) The following FAR/DFARS/DLAD contract clauses and solicitation provisions are hereby incorporated by reference in addition to those listed in the CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS - COMMERCIAL ITEMS and the CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS clauses:

(1)

<u>SOLICITATION PROVISION NUMBER</u>	<u>REGULATORY NUMBER</u>	<u>PROVISION TITLE</u>
*	FAR 52.211-14	NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE. (9/90)
*	DFARS 252.225-7000	BUY AMERICAN ACT—BALANCE OF PAYMENTS PROGRAM CERTIFICATE (SEP 1999)
*	DFARS 252.225-7037	DUTY-FREE ENTRY—ELIGIBLE END PRODUCTS (AUG 2000)

\*NO PROVISION NUMBER

(2)

<u>CONTRACT CLAUSE NUMBER</u>	<u>REGULATORY NUMBER</u>	<u>CLAUSE TITLE</u>
I118	FAR 52.211-15	DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS
I198	DFARS 252.243-7001	PRICING OF CONTRACT MODIFICATIONS (DEC 1991)
*	DLAD 52.211-9002	PRIORITY RATING (MAR 2000)
*	DLAD 52.211-9004	PRIORITY RATING FOR VARIOUS LONG-TERM CONTRACTS (MARCH 2000)

(DESC 52.252-9F08)

#### **I11.04 BANKRUPTCY (JUL 1995)**

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract. (FAR 52.242-13)

#### **I84 REQUIREMENTS (OCT 1995)**

(a) This is a requirements contract for the supplies or services specified, and effective for the period stated in the Schedule. The quantities of supplies or services specified in the Schedule are estimates only and are not purchased by this contract. Except as this contract may otherwise provide, if the Government's requirements do not result in orders in the quantities described as "estimated" or "maximum" in the Schedule, that fact shall not constitute the basis for an equitable price adjustment.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the ORDERING clause. Subject to any limitations in the ORDER LIMITATIONS clause or elsewhere in this contract, the Contractor shall furnish to the Government all supplies or services specified in the Schedule and called for by orders issued in accordance with the ORDERING clause. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(c) Except as this contract otherwise provides, the Government shall order from the Contractor all the supplies or services specified in the Schedule that are required to be purchased by the Government activity or activities specified in the Schedule.

(d) The Government is not required to purchase from the Contractor requirements in excess of any limit on total orders under this contract.

(e) If the Government urgently requires delivery of any quantity of an item before the earliest date that delivery may be specified under this contract, and if the Contractor will not accept an order providing for the accelerated delivery, the Government may acquire the urgently required goods or services from another source.



(f) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; PROVIDED, that the Contractor shall not be required to make any deliveries under this contract after **31 DEC 2007**.

(FAR 52.216-21)

**II71.01-2 SMALL BUSINESS SUBCONTRACTING PLAN (ALT II) (OCT 2000)**

(a) This clause does not apply to small business concerns.

**(b) DEFINITIONS.**

(1) **Commercial item** means a product or service that satisfies the definition of commercial items in section 2.101 of the Federal Acquisition Regulation.

(2) **Commercial plan** means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

(3) **Individual contract plan** means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

(4) **Master plan** means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

(5) **Subcontract** means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) Proposals submitted in response to this solicitation shall include a subcontracting plan, that separately addresses subcontracting with small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate a subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. Service-disabled veteran-owned small business concerns meet the definition of veteran-owned small business concerns. A separate goal for service-disabled veteran-owned small business concerns is not required. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of --

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns; and

(iv) Total dollars planned to be subcontracted to HUBZone small business concerns; and

(v) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vi) Total dollars planned to be subcontracted to women-owned small business concerns

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to--

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns;

(v) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Procurement Marketing & Access Network (PRO-Net) of the Small Business Administration, veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged and women-owned small business concerns trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for purposes of maintaining a small, veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (i.e., outreach, assistance, counseling, publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with--

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

- (iv) Small disadvantaged business concerns, and
- (v) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause in this contract entitled UTILIZATION OF SMALL BUSINESS CONCERNS in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction of any public facility) to adopt a plan similar to the plan that complies with the requirements of this clause.

(10) Assurances that the offeror will--

- (i) Cooperate in any studies or surveys as may be required;
- (ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the

subcontracting plan;

(iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists, (e.g., PRO-Net), guides, and other data that identify small business, veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating--

- (A) Whether small business concerns were solicited and if not, why not;
- (B) Whether veteran-owned small business concerns were solicited and if not, why not;
- (C) Whether HUBZone small business were solicited and if not, why not;
- (D) Whether small disadvantaged business concerns were solicited and if not, why not;
- (E) Whether women-owned small business concerns were solicited and if not, why not, and
- (F) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact--

- (A) Trade associations;
- (B) Business development organizations, and
- (C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business

sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through--

- (A) Workshops, seminars, training, etc., and
- (B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small businesses, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, HUBZone small business, small disadvantaged business and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided--

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime Contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with--

(1) The clause of this contract entitled UTILIZATION OF SMALL BUSINESS CONCERNS; or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) **Standard Form 294, Subcontracting Report for Individual Contracts.** This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) **Standard Form 295, Summary Subcontract Report.** This report encompasses all the contracts with the awarding agency. It must be submitted semiannually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector. (FAR 52.219-9/Alt II)

#### **I190.06 MATERIAL SAFETY DATA SHEETS -- COMMERCIAL ITEMS (DESC MAR 2000)**

(a) The Contractor agrees to submit to the Contracting Officer, upon request, a Material Safety Data Sheet (MSDS) that meets the requirements of 29 CFR 1910.1200(g) and the latest revision of Federal Standard No. 313 for all requested contract items. MSDSs must cite the contract number, the applicable CAGE code of the manufacturer, and, where so identified, the National Stock Number (NSN).

(b) The data on the MSDSs must be current and complete, reflecting the final composition of the product supplied. Should the description /composition of the product change in any manner from a previously submitted MSDS, the Contractor shall promptly provide a new MSDS to the Contracting Officer.

(DESC 52.223-9F06)

### **PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS**

#### **SECTION J**

#### **LIST OF ATTACHMENTS**

<b><u>FORM NR</u></b>	<b><u>TITLE</u></b>	<b><u>DATE</u></b>	<b><u>NR OF PAGES</u></b>
N/A	STATEMENT OF OBJECTIVES (SOO)	N/A	5
N/A	GUIDELINES FOR PREPARATION OF PRODUCT ANALYSIS REPORTS	SEP 02	3
N/A	MIL-PRF-27401D	02 OCT 02	11
N/A	TRANSPORT EQUIP DELAY CERT	N/A	1

**REPRESENTATIONS AND INSTRUCTIONS**  
**SECTION K**  
**REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS**

**K1.01-10 OFFEROR REPRESENTATIONS AND CERTIFICATIONS - COMMERCIAL ITEMS (ALTS I/III)**  
**(APR 2001/OCT 2000/OCT 2000)**

(a) **DEFINITIONS.** As used in this provision--

(1) **Emerging small business** means a small business concern whose size is no greater than 50 percent of the numerical size standard for the standard industrial classification code designated.

(2) **Forced or indentured child labor means** all work or service—

(i) Exacted from any person under the age of 18 under the menace of any penalty for its nonperformance and for which the worker does not offer himself voluntarily; or

(ii) *Performed by any person under the age of 18 pursuant to a contract, the enforcement of which can be accomplished by process of penalties.*

(3) **Service-disabled veteran-owned small business concern—**

(i) Means a small business concern—

(A) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(B) *The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.*

(ii) Service disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

(4) **Small business concern** means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and size standards in this solicitation.

(5) **Veteran-owned small business concern means a small business concern—**

(i) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(ii) The management and daily business operations of which are controlled by one or more veterans.

(6) **Women-owned business concern** means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(7) **Women-owned small business concern** means a small business concern--

(i) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(ii) Whose management and daily business operations are controlled by one or more women.

(b) **TAXPAYER IDENTIFICATION NUMBER (TIN) (26 U.S.C. 6109, 31 U.S.C. 7701). (Not applicable if the offeror is required to provide this information to a central contractor registration database to be eligible for award.)**

(1) All offerors must submit the information required in paragraphs (b)(3) through (b)(5) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the Internal Revenue Service (IRS).

(2) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(3) **TAXPAYER IDENTIFICATION NUMBER (TIN).**

[ ] TIN: \_\_\_\_\_

[ ] TIN has been applied for.

[ ] TIN is not required because:

[ ] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.

[ ] Offeror is an agency or instrumentality of a foreign government;

[ ] Offeror is an agency or instrumentality of a Federal, state, or local government;

[ ] Other. State basis. \_\_\_\_\_

(4) **TYPE OF ORGANIZATION.**

[ ] Sole proprietorship;

[ ] Partnership;

[ ] Corporate entity (not tax-exempt);

- ☐ Corporate entity (tax-exempt);
- ☐ Government entity (Federal, State, or local);
- ☐ Foreign government;
- ☐ International organization per 26 CFR 1.6049-4;
- ☐ Other: \_\_\_\_\_.

**(5) COMMON PARENT.**

- ☐ Offeror is not owned or controlled by a common parent.
- ☐ Name and TIN of common parent:  
Name \_\_\_\_\_  
TIN \_\_\_\_\_

(c) Offerors must complete the following representations when the resulting contract is to be performed inside the United States, its territories or possessions, Puerto Rico, the Trust Territory of the Pacific Islands, or the District of Columbia. Check all that apply.

**(1) SMALL BUSINESS CONCERN.** The offeror represents as part of its offer that it--

- ☐ is
- ☐ is not

a small business concern.

**(2) VETERAN-OWNED SMALL BUSINESS CONCERN. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.)** The offeror represents as part of its offer that it--

- ☐ is
- ☐ is not

a veteran-owned small business concern.

**(3) SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS CONCERN. (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(2) of this provision.)** The offeror represents as part of its offer that it--

- ☐ is
- ☐ is not

a service-disabled veteran-owned small business concern.

**(4) SMALL DISADVANTAGED BUSINESS CONCERN. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.)** The offeror represents, for general statistical purposes, that it--

- ☐ is
- ☐ is not

a small disadvantaged business concern as defined in 13 CFR 124.1002.

**(5) WOMEN-OWNED SMALL BUSINESS CONCERN. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.)** The offeror represents that it--

- ☐ is
- ☐ is not

a women-owned small business concern.

**NOTE: Complete paragraphs (c)(6) and (c)(7) only if this solicitation is expected to exceed the simplified acquisition threshold.**

**(6) WOMEN-OWNED BUSINESS CONCERN (OTHER THAN SMALL BUSINESS CONCERN).** (Complete only if the offeror is a women-owned business concern and did not represent itself as a small business concern in paragraph (c)(1) of this provision.) The offeror represents that it -

☐ is

a women owned business concern.

**(7) TIE BID PRIORITY FOR LABOR SURPLUS AREA CONCERNS.** If this is an invitation for bid, small business offerors may identify the labor surplus areas in which costs to be incurred on account of manufacturing or production (by offeror or first-tier subcontractors) amount to more than 50 percent of the contract price.

**(8) SMALL BUSINESS SIZE FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM AND FOR THE TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM.** (Complete only if the offeror has represented itself to be a small business concern under the size standards for this solicitation.)

**(i) (Complete only for solicitations indicated in an addendum as being set-aside for emerging small businesses in one of the four designated industry groups (DIGs)).** The offeror represents as part of its offer that it--

☐ is

☐ is not

an emerging small business.

**(ii) (Complete only for solicitations indicated in an addendum as being for one of the targeted industry categories (TICs) or four designated industry groups (DIGs)).** The offeror represents as follows:

(A) The offeror's number of employees for the past 12 months (check the Employees column if size standard stated in the solicitation is expressed in terms of number of employees); or

(B) The offeror's average annual gross revenue for the last 3 fiscal years (check the Average Annual Gross Number of Revenues column if size standard stated in the solicitation is expressed in terms of annual receipts).

(Check one of the following:)

<u>NUMBER of EMPLOYEES</u>	<u>AVERAGE ANNUAL GROSS REVENUES</u>
<input type="checkbox"/> 50 or fewer	<input type="checkbox"/> \$1 million or less
<input type="checkbox"/> 51 - 100	<input type="checkbox"/> \$1,000,001 - \$2 million
<input type="checkbox"/> 101 - 250	<input type="checkbox"/> \$2,000,001 - \$3.5 million
<input type="checkbox"/> 251 - 500	<input type="checkbox"/> \$3,500,001 - \$5 million
<input type="checkbox"/> 501 - 750	<input type="checkbox"/> \$5,000,001 - \$10 million
<input type="checkbox"/> 751 - 1,000	<input type="checkbox"/> \$10,000,001 - \$17 million
<input type="checkbox"/> Over 1,000	<input type="checkbox"/> Over \$17 million

**(9) (Complete only if the solicitation contains the clause at FAR 52.219-23, NOTICE OF PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED BUSINESS CONCERNS, or FAR 52.219-25, SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM - DISADVANTAGED STATUS AND REPORTING, and the offeror desires a benefit based on its disadvantaged status.)**

**(i) GENERAL.** The offeror represents that either--

(A) It--

☐ is

☐ is not

certified by the Small Business Administration as a small disadvantaged business concern and identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net), and that no material change in disadvantaged ownership and control has occurred since its certification, and, where the concern is owned by one or more individuals claiming disadvantaged status, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); or

(B) It--

- ☐ has  
☐ has not

submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(ii) **JOINT VENTURE UNDER THE PRICE EVALUATION ADJUSTMENT FOR SMALL DISADVANTAGED BUSINESS CONCERNS.** The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements in 13 CFR 124.1002(f) and that the representation in paragraph (c)(7)(i) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: \_\_\_\_\_.

(10) **(Complete if the offeror represented itself as disadvantaged in paragraph (c)(2) or (c)(9) of this provision.)** The offeror shall check the category in which its ownership falls:

- ☐ Black American
- ☐ Hispanic American
- ☐ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).
- ☐ Asian-Pacific American (persons with origin from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).
- ☐ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).
- ☐ Individual/concern, other than one of the preceding.

(11) **HUBZONE SMALL BUSINESS CONCERN. (Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.)** The offeror represents as part of its offer that--

(i) It--

- ☐ is  
☐ is not

a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns Maintained by the Small Business Administration, and no material change in ownership and control, principal place of ownership, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR Part 126; and

(ii) It--

- ☐ is  
☐ is not

a joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (c)(11)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating on the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:

\_\_\_\_\_.)

_____	_____
_____	_____
_____	_____
_____	_____

Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

**(d) CERTIFICATIONS AND REPRESENTATIONS REQUIRED TO IMPLEMENT PROVISIONS OF EXECUTIVE ORDER 11246.**

**(1) PREVIOUS CONTRACTS AND COMPLIANCE.** The offeror represents that--

(i) It--

☐ has

☐ has not

participated in a previous contract or subcontract subject to the EQUAL OPPORTUNITY clause of this solicitation; and

(ii) It--

☐ has

☐ has not

filed all required compliance reports.

**(2) AFFIRMATIVE ACTION COMPLIANCE.** The offeror represents that--

(i) It--

☐ has developed and has on file

☐ has not developed and does not have on file

at each establishment, affirmative action programs required by rules and regulations of the Secretary of Labor (41 CFR Subparts 60-1 and 60-2), or

(ii) It--

☐ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

**(e) CERTIFICATION REGARDING PAYMENTS TO INFLUENCE FEDERAL TRANSACTIONS (31 U.S.C. 1352).**

**(Applies only if the contract is expected to exceed \$100,000).** By submission of its offer, the offeror certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with the award of any resultant contract.

**(f) BUY AMERICAN ACT - TRADE AGREEMENTS - BALANCE OF PAYMENTS PROGRAM CERTIFICATE (DFARS 252.225-7006). (Applies only if DFARS clause 252.225-7007, TRADE AGREEMENTS ACT, is incorporated by reference in this solicitation.)**

(1) The offeror certifies that--

(i) Each end product, except the end products listed in subparagraph (2) below, is a domestic end product (as defined in the BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM clause of this solicitation); and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The offeror must identify and certify all end products that are not domestic end products.

(i) The offeror certifies that the following supplies qualify as "U.S.-made end products" but do not meet the definition of "domestic end product":

---

(Insert line item no.)

(ii) The offeror certifies that the following supplies are qualifying country end products:

---

(Insert line item no.)

---

(Insert country of origin)



(iii) The offeror certifies that the following supplies are qualify as designated country end products:

\_\_\_\_\_  
(Insert line item no.)

\_\_\_\_\_  
(Insert country of origin)

(iv) The offeror certifies that the following supplies qualify as Caribbean Basin country end products:

\_\_\_\_\_  
(Insert line item no.)

\_\_\_\_\_  
(Insert country of origin)

(v) The offeror certifies that the following supplies qualify as NAFTA country end products:

\_\_\_\_\_  
(Insert line item no.)

\_\_\_\_\_  
(Insert country of origin)

(vi) The offeror certifies that the following supplies are other nondesignated country end products:

\_\_\_\_\_  
(Insert line item no.)

\_\_\_\_\_  
(Insert country of origin)

### (LIST AS NECESSARY)

(3) Offers will be evaluated by giving preference to U.S.-made end products, qualifying country end products, designated country end products, NAFTA country end products, and Caribbean Basin country end products over other end products.

(g) **BUY AMERICAN ACT - NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA) IMPLEMENTATION ACT - BALANCE OF PAYMENTS PROGRAM CERTIFICATE (DFARS 252.225-7035). (Applies only if DFARS clause 252.225-7036, NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA) IMPLEMENTATION ACT, clause is incorporated by reference in this solicitation.)**

(1) The offeror certifies that--

(i) Each end product, except the end products listed in subparagraph (2) below, is a domestic end product (as defined in the BUY AMERICAN ACT AND BALANCE OF PAYMENTS PROGRAM clause of this solicitation); and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The offeror must identify and certify all end products that are not domestic end products.

(i) The offeror certifies that the following supplies qualify as "U.S.-made end products," but do not meet the definition of **"domestic end products"**:

\_\_\_\_\_  
(Insert line item number)

(ii) The offeror certifies that the following supplies are qualifying country (except Canada) end products:

\_\_\_\_\_  
(Insert line item number)

\_\_\_\_\_  
(Insert country of origin)

(iii) The offeror certifies that the following supplies qualify as NAFTA country end products:

\_\_\_\_\_  
(Insert line item number)

\_\_\_\_\_  
(Insert country of origin)

(iv) The offeror certifies that the following supplies are other foreign end products:

\_\_\_\_\_  
(Insert line item number)

\_\_\_\_\_  
(Insert country of origin)

### (LIST AS NECESSARY)

(3) Offers will be evaluated by giving preference to U.S.-made end products, qualifying country end products, or NAFTA country end products over other end products.

**(h) CERTIFICATION REGARDING DEBARMENT, SUSPENSION OR INELIGIBILITY FOR AWARD (EXECUTIVE ORDER 12549).**

The offeror certifies, to the best of its knowledge and belief, that--

(1) The offeror and/or any of its principals

☐ are  
☐ are not

presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency, and

(2) ☐ have or  
☐ have not,

within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, state or local government contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

☐ are or  
☐ are not

presently indicted for, or otherwise criminally or civilly charged by a government entity with, commission of any of these offenses.

**(i) CERTIFICATION REGARDING KNOWLEDGE OF CHILD LABOR FOR LISTED END PRODUCTS (EXECUTIVE ORDER 13126). [The Contracting Officer must list in paragraph (i)(1) any end products being acquired under this solicitation that are included in the List of Products Requiring Contractor Certification as to Forced or Indentured Child Labor, unless excluded at 22.1503(b).]**

(1) List End Product.

\_\_\_\_\_  
 (Insert end product) (Insert country of origin)

\_\_\_\_\_  
 (Insert end product) (Insert country of origin)

\_\_\_\_\_  
 (Insert end product) (Insert country of origin)

\_\_\_\_\_  
 (Insert end product) (Insert country of origin)

\_\_\_\_\_  
 (Insert end product) (Insert country of origin)

**(2) CERTIFICATION. [If the Contracting Officer has identified end products and countries of origin in paragraph (i)(1) of this provision, then the offeror must certify to either (i)(2)(i) or (i)(2)(ii) by checking the appropriate block.]**

(i) ☐ The offeror will not supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product.

(ii) ☐ The offeror may supply an end product listed in paragraph (i)(1) of this provision that was mined, produced, or manufactured in the corresponding country as listed for that product. The offeror certifies that it has made a good faith effort to determine whether forced or indentured child labor was used to mine, produce, or manufacture any such end product furnished under this contract. On the basis of those efforts, the offeror certifies that it is not aware of any such use of child labor.

**K1.05 OFFEROR REPRESENTATIONS AND CERTIFICATIONS - COMMERCIAL ITEMS (NOV 1995)**

(a) **DEFINITIONS.** As used in this clause--

(1) **Foreign person** means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).

(2) **United States person** is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern, as determined under regulations of the President.

(b) **CERTIFICATION.** By submitting this offer, the offeror, if a foreign person, company, or entity, certifies that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. Sec 2407(a) prohibits a United States person from taking.

(DFARS 252.212-7000, tailored)

**K12.04 BUY AMERICAN ACT - NORTH AMERICAN FREE TRADE AGREEMENT IMPLEMENTATION ACT - BALANCE OF PAYMENTS PROGRAM CERTIFICATE (MAR 1998)**

(a) **DEFINITIONS.** **Domestic end product, foreign end product, NAFTA country end product, and qualifying country end product** have the meanings given in the BUY AMERICAN ACT – NAFTA IMPLEMENTATION ACT - BALANCE OF PAYMENTS PROGRAM clause of this solicitation.

(b) **EVALUATION.** Offers will be evaluated in accordance with the policies and procedures of Part 225 of the DFARS. For line items subject to the NAFTA Implementation Act, offers of qualifying country end products or NAFTA country end products will be evaluated without regard to the restrictions of the Buy American Act or the Balance of Payments Program.

(c) **CERTIFICATIONS.**

(1) The offeror certifies that--

(i) Each end product, except the end products listed in paragraph (c)(2) of this provision, is a domestic end product;

and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The offeror must identify all end products that are not domestic end products.

(i) The offeror certifies that the following supplies are qualifying country (except Canada) end products:

\_\_\_\_\_  
(Insert line item number)

\_\_\_\_\_  
(Insert country of origin)

(ii) The offeror certifies that the following supplies qualify as NAFTA country end products:

\_\_\_\_\_  
(Insert line item number)

\_\_\_\_\_  
(Insert country of origin)

(iii) The following supplies are other foreign end products:

\_\_\_\_\_  
(Insert line item number)

\_\_\_\_\_  
(Insert country of origin)

(DFARS 252.225-7035)

**K15 RELEASE OF UNIT PRICES (DESC OCT 2002)**

The Defense Energy Support Center (DESC) will continue to release unit prices of successful offerors after the contract award pursuant to 10 U.S.C. 2305(g)(2), FAR 15.606(d)(2) and 32 CFR 286h-3. Unit prices are the bottom-line price per unit of product and may include the total contract price. They do not include any breakout of costs, such as transportation or overhead, and do not disclose the offeror's anticipated profit or any pricing factors.

(DESC 52.224-9F25)

**K33.01 AUTHORIZED NEGOTIATORS (DESC JAN 1998)**

The first page of the offer must show names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate with the Government on the offeror's behalf in connection with this solicitation. The offeror or quoter represents that the following persons are authorized to negotiate on its behalf with the Government in connection with this request for proposals or quotations.

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(DESC 52.215-9F28)

**K45.04 FACSIMILE INVOICING (DESC JUL 1998)**

- (a) Submission of invoices by facsimile (FAX) is authorized when the offeror will utilize this method of invoicing at all times.  
 (b) Offeror shall indicate whether or not invoices will be submitted via FAX:

[ ] YES [ ] NO

- (c) Invoicing by facsimile shall be in accordance with the procedures of the applicable paying office.

**(d) RETURN OF INVOICES BY THE PAYING OFFICE.**

- (1) Invoices deemed improper in accordance with the Prompt Payment Act may be returned to the Contractor via FAX with the reason for the return clearly annotated.  
 (2) The offeror's/Contractor's FAX number for returning improper invoices is \_\_\_\_\_.

(DESC 52.232-9F10)

**REPRESENTATIONS AND INSTRUCTIONS****SECTION L****INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS****L1.02 PROPOSAL ACCEPTANCE PERIOD (DESC NOV 1991)**

- (a) **Acceptance period**, as used in this provision, means the number of calendar days available to the Government for awarding a contract from the date specified in this solicitation for receipt of proposals.  
 (b) This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.  
 (c) The Government requires a minimum acceptance period of 60 calendar days.  
 (d) If the offeror specifies an acceptance period which is less than that required by the Government, such offer may be rejected.  
 (e) The offeror agrees to execute all that it has undertaken to do, in compliance with its offer, if such offer is acceptable to the Government and is accepted within the acceptance period stated in (c) above or within any extension thereof that has been agreed to by the offeror.

(DESC 52.215-9FB1)

**L2.11-2 FACSIMILE PROPOSALS (OCT 1997)**

- (a) **DEFINITION. Facsimile proposal**, as used in this provision, means a proposal, revision, or modification of a proposal, or withdrawal of a proposal that is transmitted to and received by the Government via facsimile machine.  
 (b) Offerors may submit facsimile proposals as responses to this solicitation. Facsimile proposals are subject to the same rules as paper proposals.  
 (c) The telephone number of receiving facsimile equipment is (210) 925-9758.  
 (d) If any portion of a facsimile proposal received by the Contracting Officer is unreadable to the degree that conformance to the essential requirements of the solicitation cannot be ascertained from the document—  
     (1) The Contracting Officer immediately shall notify the offeror and permit the offeror to resubmit the proposal;  
     (2) The method and time for resubmission shall be prescribed by the Contracting Officer after consultation with the offeror; and  
     (3) The resubmission shall be considered as if it were received at the date and time of the original unreadable submission for the purpose of determining timeliness, provided the offeror complies with the time and format requirements for resubmission prescribed by the Contracting Officer.  
 (e) The Government reserves the right to make award solely on the facsimile proposal. However, if requested to do so by the Contracting Officer, the apparently successful offeror promptly shall submit the complete original signed proposal.

(FAR 52.215-5)

**L5.01-1 AGENCY PROTESTS (SEP 1999) - DLAD**

Companies protesting this procurement may file a protest (1) with the Contracting Officer, (2) with the General Accounting Office, or (3) pursuant to Executive Order No. 12979, with the Agency for a decision by the Activity's Chief of the Contracting Office. Protests filed with the Agency should clearly state that they are an "Agency Level Protest under Executive Order No. 12979." (**NOTE:** DLA procedures for Agency Level Protests filed under Executive Order No. 12979 allow for a higher level decision on the initial protest than would occur with a protest to the Contracting Officer; this process is not an appellate review of a Contracting Officer's decision on a protest previously filed with the Contracting Officer.) Absent a clear indication of the intent to file an agency level protest, protests will be presumed to be protests to the Contracting Officer.

(DLAD 52.233-9000)

**L54.01 SITE VISIT (APR 1984)**

Offerors or quoters are urged and expected to inspect the site where services are to be performed and to satisfy themselves regarding all general and local conditions that may affect the cost of contract performance, to the extent that the information is reasonably obtainable. In no event shall failure to inspect the site constitute grounds for a claim after contract award.

(FAR 52.237-1)

To make arrangements to visit the site during the solicitation or contract period, contact:

Mr John Materniak  
Lockheed Martin  
Route 413  
Newtown, PA 18940

Phone: 215-497-2776

**L74 TYPE OF CONTRACT (APR 1984)**

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

(FAR 52.216-1)

**REPRESENTATIONS AND INSTRUCTIONS**  
**SECTION M**  
**EVALUATION FACTORS FOR AWARD**

**M2.11.100 EVALUATION - COMMERCIAL ITEMS (NOV 2002)**

(a) Award will be made on the basis of proposals meeting or exceeding the acceptability standards for non-cost factors. Non-cost factors to be evaluated shall be technical capability and past performance. Of the technically acceptable proposals, the proposal with the lowest evaluated price will be awarded the contract.

(b) A written notice of award or acceptance of offer, mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

STATEMENT OF OBJECTIVES  
SP0600-03-R-0301

**1. GENERAL INFORMATION:** The Defense Energy Support Center (DESC), Defense Logistics Agency, as the Department of Defense (DOD) Integrated Materiel Manager (IMM) for Missile Fuels Products and related services, requires production and delivery of Liquid Nitrogen, Type II, Grade B, as well as contractor-provided storage, in support of National Defense and the U.S. Space Program. The contractor shall provide all production and storage facilities, raw materials, supplies, management, tools, equipment and labor necessary for the manufacture and delivery from the contractor's facility of Liquid Nitrogen in accordance with MIL-PRF-27401D, dated 03 Oct 1995. The contract resulting from this competitive solicitation will be a four year, ten month requirements type contract for the period **01 Feb 2003 through 30 Nov 2007** for delivery and storage of Liquid Nitrogen (LIN) at Lockheed Martin, Newtown PA. This requirement is for the estimated total quantity of 38,143 tons of product delivered FOB Destination, into contractor provided storage tanks.

**2. Government's Required Delivery Schedule**

a. Routine deliveries will be between 0730 to 1600 Monday through Friday. There may be instances when, due to an emergency situation, deliveries will be required outside the routine delivery hours stated above. In those cases, deliveries will be required 24 hours a day, 7 days a week.

b. When shipment departs contractor's plant, the contractor shall advise the using activity within four (4) hours from time of departure.

c. The supplies shall be delivered FOB DESTINATION, into contractor provided storage tanks at the expense of the contractor.

d. The minimum order amount is 20 Tons.

**3. Contractor Equipment Required**

a. The contractor must provide, install, and maintain the following equipment:

1. Five each of approximately 13,000 gallons, vertical storage tanks with dual rupture discs tied to a three-way valve.

2. Three-foot leg extensions for four of the tanks, thereby maximizing single phase liquid flow to use points.

3. Two 50,000 scfh vaporizers.

4. Four pressure building vaporizers.

5. Tel-Tank (Telemetry System).

6. Labor and materials for installation of vaporizers, switching valves, and piping.

7. Vacuum jacketed fittings for retrofitting four tanks liquid withdrawal connections.

b. The Contractor shall inspect equipment as required to keep the system adequately maintained. The Government will visually inspect vessels and report findings to the supplying

Contractor. This service on the part of Government personnel will not relieve the Contractor of his responsibility to make regularly scheduled inspections of this equipment for the purpose of adequately maintaining the system as specified herein. The Contractor shall insert the name and phone number of the person to contact in case of problems dealing with the Contractors equipment.

NAME: \_\_\_\_\_

PHONE: \_\_\_\_\_

c. The Contractor installed equipment shall be removed within 30 days upon the completion/termination of the contract, in full cooperation with the succeeding contractor and user to avoid interruption of product supply.

#### **4. Packaging Requirement**

- a. The contractor shall be responsible for ensuring full compliance with all applicable packaging/packing, marking, place carding and shipper certifications, in force and effect on the date of the shipment in accordance with Title 49 Code of Federal Regulations (49 CFR) rules and regulations applicable to the mode of transportation and ultimate destination:

(1) MIL-STD 129. Standard Practice for Military Markings (for military destinations)

(2) Title 49 Code of Federal Regulations (49 CFR) – Transportation

(3) AFJMAN 24-204, Preparing Hazardous Materials for Military Air Shipments

(4) International Air Transport Association (IATA) – Dangerous Goods Regulations

(5) International Civil Aviation Organization (ICAO) – Technical Instructions for the Safe Transportation of Dangerous Goods by Air

(6) International Maritime Organization (IMO) – International Maritime Dangerous Goods (IMDG) Code (for Overseas shipments by vessel)

b. The product shall be delivered in a contractor-furnished tank that meets the requirements of Title 49, Code of Federal Regulations.

- c. Contractor commercial packaging must comply with paragraphs a. and b. above.

#### **5. PROPELLANT PRESSURIZING AGENT, NITROGEN, TYPE II – LIQUID, GRADE B (MISSILE FUELS) (DESC JUNE 2002)**

(a) Specification MIL-PRF-27401D, dated October 3, 1995, Propellant Pressurizing Agent, Nitrogen applies. The specification is modified as follows:

Table I: Delete the requirement for the particulate test.

Paragraph 4.4.3, line 9: Replace “MIL-T-27730” with “A-A-58092”.

Figure 1: Replace “MS33584” with “SAE-AS4330”.

(b) Laboratory reports shall be standardized format as outlined in Attachment 1. A copy of the lab report shall accompany individual shipment DD 250's and shall be attached to all DD 250's distributed in accordance with requirements identified throughout this contract.  
(DESC 52.246-9XXXX)

## **6. POINT OF INSPECTION and ACCEPTANCE, PROPELLANT PRESSURIZING AGENT, NITROGEN, TYPE II – LIQUID, GRADE B**

Product offered under this contract will be FOB destination into contractor-provided storage tanks.

- a. Inspection for quality shall be at origin (fill point).
- b. Inspection for quantity and final acceptance will be at destination.

## **7. PRODUCT ORDERS AND GOVERNMENT REQUIRED DELIVERY:**

a. Blanket Delivery Orders shall be issued by the DESC Contracting Officer. However, the Inventory Manager through issuance of a Propellants Delivery Schedule will designate specifics as to individual deliveries to be accomplished under the Blanket Delivery Order.

b. Product orders shall be available for shipment within 24 hours of issuance of a Propellants Delivery Schedule by the Government. The Government reserves the right to extend that period beyond 24 hours.

c. A Propellants Delivery Schedule shall be issued by the DESC Inventory Manager at **DEFENSE ENERGY SUPPORT CENTER, MISSILE FUELS COMMODITY BUSINESS UNIT OFFICE, DESC-MIC, 2261 HUGHES AVE., STE. 128, BLDG. 1621-K, LACKLAND AFB TX 78236-9828.** Propellants Delivery Schedule shall normally be in writing, dated and serially numbered, however, telephone request(s) may be made in an emergency and shall be confirmed in writing, within 24 hours. The Propellant Delivery Schedule shall contain as a minimum: Item number(s) being scheduled.

- (1) Item numbers(s) being scheduled.
- (2) Quantity of each item being scheduled. (Propellants Delivery Schedules are issued for single orders or shipments and for blanket orders or multiple shipments. Blanket Delivery Orders are normally for one month and restrict or limit the maximum amount a Contractor can schedule for delivery during a specified period.)
- (3) Unit price and total price of each item being scheduled.
- (4) National Stock Number (NSN)
- (5) Contract and order number.
- (6) Destination of product.
- (7) Required delivery date(s)
- (8) Information in "Mark For" of Propellants Product Request must be transferred to the DD250.
- (9) Remarks: Special Instructions to vendor for processing the shipments and reasons for amendments.

d. The Contractor shall advise **DESC-MIC** and the using activity of the following:



List of personnel available on a 24-hour a day basis that are authorized to receive Propellants Product Requests. The list shall include full name, office telephone number, home telephone number, direct distance dialing number, Fax number, and E-mail (if available) and kept updated with changes. They must also have the name, title, mailing address, and phone number of the inspecting QAR.

e. A Propellant Delivery Schedule shall be considered cancelled when an amendment is initiated by the Inventory Manager.

## **8. SUBMISSION OF INVOICES FOR PAYMENT OF PRODUCT**

### **(a) CERTIFICATION OF RECEIPT.**

#### **F.O.B. DESTINATION DELIVERIES.**

(i) The supplier shall submit two certified material inspection reports or the equivalent along with an invoice to the appropriate paying office. One of the copies of the receiving report submitted for payment must contain the original signature of the QAR, typed name, title, mailing address, and telephone number and will have the following information stamped, printed, or typed on it: "ORIGINAL INVOICE". The receiving report must be signed by the QAR to certify acceptance of the product prior to submission of the receiving report to the paying office.

(ii) The receipt for FOB destination product may be one of the following documents:

(A) The DD Form 250, Material Inspection and Receiving Report or Commercial Shipping Document

(b) **SUBMISSION OF INVOICES BY MAIL.** Hard copy invoices, with two copies of DD Form 250 or one shipping document for product paid for by Defense Logistics Agency/DESC funds shall be mailed to the address below:

If submitted by Normal Mail:

DFAS Columbus Center  
ATTN DFAS-BVDFB (MISSILE FUELS)  
PO BOX 182317  
COLUMBUS OH 43218-6250

If submitted by FEDEX:

DFAS Columbus Center  
Attn: DFAS-BVDFB/CC  
3990 East St Bldg 21  
Columbus, OH 43213-1152

## **9. SUBMISSION OF INVOICES FOR PAYMENT OF SERVICES**

One (1) original and one (1) copy of Contractor's Invoice shall be prepared and forwarded to:

DESC-MIC (INVOICE) MONITOR  
BLDG 1621-K  
2261 HUGHES AVE STE 128  
LACKLAND AFB TX 78236-9828

#### **10. DELAY AND STANDBY TIME**

##### **F.o.b. Destination**

No payment shall be made by the Government for delays or standby to the Contractor's trailers or tank trucks incident to the operation or off-loading at using activities except when such delays exceed **four (4)** hours from arrival at using activity to departure from using activity and such delays are directly attributable to action or non-action of the Government or its agents. For delays that meet this criteria, the Contractor shall be reimbursed IAW CLIN 0002 and this provision. The attached "Transport Equipment Delay Certificate" shall be completed to show time and date the carrier arrived and departed and the reason(s) for the delay. Both the driver and the contractor personnel must sign the form. The delay time shall start at the place of entry to the using activity where verification may be made by operating personnel. The Contractor is obligated to schedule deliveries so that trucks will arrive at using activity between the specified hours. Unless otherwise specified in the delivery schedule, the delay and standby time will be between the hours stated. When vehicles are held at the convenience of the Government, payment will be made for actual hours delayed. All charges to the Government under this acquisition shall be submitted within thirty (30) days of date(s) demurrage was incurred. A separate invoice with supporting information is required. The invoice and original copy of the "Transport Equipment Delay Certificate" will be forwarded to DESC-MIC, BLDG 1621-K, 2261 Hughes Ave, Suite 128, Lackland AFB, TX 78236-9828 for certification prior to effecting payment.

## **GUIDELINES FOR THE PREPARATION OF PRODUCT ANALYSIS REPORTS FOR LIQUID PROPELLANTS**

### **GENERAL INSTRUCTIONS Sept 2002**

These instructions are designed for use as a guide in preparing/formatting liquid propellant analysis reports (including gases and cryogenic liquids). To facilitate scanning or imaging, only computer generated or typed test reports are acceptable, there should be no handwritten entries. A template of the standardized test report format is provided in Figure I. Table I includes the test codes used in this standard report format that will be incorporated into future Electronic Data Interchange (EDI) transmissions of test result data.

Each report should be tailored to include only those rows of information that are applicable to the specific product being tested and the methods used to evaluate each property. Select only those methods authorized by the product specification unless otherwise stated in the contract. The code used should be limited to the actual test method used for a particular analysis. If a test code does not appear for a specification or contract approved method, contact the Defense Energy Support Center (DESC) at (210) 925-2488.

### **DETAILED INSTRUCTIONS FOR THE STANDARD TEST REPORT FORMAT (FIGURE 1)**

1. Items appearing in *italics* inside brackets are meant to be short descriptions of the data being requested and should be replaced with the appropriate data.
2. The test method should be the paragraph cited in the specification for that method or the ASTM procedure cited in the product specification.
3. Test codes are unique to each test method of each specification or contract clause and must be included on the report.

[Name of laboratory performing analysis]  
[Address of laboratory performing analysis]  
[phone, fax, email of laboratory performing analysis]

**Report of Analysis**  
[name of product]

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Report Date: [date of certified report]	Report Number: [unique lab report number]
Manufacturer: [name of manufacturer]	Specification: [spec with revision and amendment]
[address of manufacturer]	Product: [name of product]
[address of manufacturer]	Type: [type or grade of product]
Submitted by: [name of submitter]	
[address of submitter]	NSN: [national stock number]
[address of submitter]	Contract: [contract number]
Date Sampled: [sample date]	Lot: [batch or lot number]
Sample Origin: [tank no., drum no., etc.]	
Sample No.: [submitters sample identification]	Reason for submission: [reason for performing analysis]

CODE	METHOD	TEST	UNITS	MIN	MAX	RESULTS
[test code]	[test method]	[test description]	[units]	[spec limits]		[test result]
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

---

Remarks: [include any remarks concerning the analysis]

\_\_\_\_\_  
[Signature of the certifying official]  
[Signature block of certifying official]

**Table I**

<b>Test Codes</b>	<b>Test Description</b>	<b>Spec/Paragraph</b>
010A	Saybolt Color	ASTM D-156
010B	Saybolt Color (Spectro)	ASTM D-6045
155	JP-10 - DCPD	MIL-P-87107C, APP A
156	JP-10 - Other Hydrocarbons	MIL-P-87107C, APP A
1009	PF-1 – DCPD & Methylcyclohexane Content	MIL-DTL-87173B, APP A
1009A	PF-1 – DCPD & Methylcyclohexane Content	MIL-DTL-87173B, APP C
1010	PF-1 – Other Hydrocarbons	MIL-DTL-87173B, App A
1010A	PF-1 – Other Hydrocarbons	MIL-DTL-87173B, App C
220B	Flash Point P-M	ASTM D-93
220C	Flash Point – Seta Method A	ASTM D-3828
230A	Density @ 15°C – Hydrom	ASTM D-1298
230B	Density @ 15°C – Digital	ASTM D-4052
300A	Freezing Point	ASTM D-2386
310	Viscosity	ASTM D-445
400A	Net Heat by Bomb	ASTM D-240
400H	Net Heat by Bomb	ASTM D-2382
600B	JFTOT @ 260 °C	ASTM D-3241
601	Pressure Change	ASTM D-3241
602	Visual Rating	ASTM D-3241
600E	JFTOT @ 300 °C	ASTM D-3241
601	Pressure Change	ASTM D-3241
602	Visual Rating	ASTM D-3241
710	Existent Gum	ASTM D-381
720A	Particulate Count	ASTM D-2276
720B	Particulate Count	ASTM D-5452
830A	FSII	ASTM D-5006
830B	FSII	FED TM5327
1011	LN, Grade B, Purity	MIL-PRF-27401D, Para 4.4.1
1012	LN, Grade B, Impurities	MIL-PRF-27401D, Table I, Note d
1013	LN, Grade B Water	MIL-PRF-27401D, Para 4.4.2
1014	LN, Grade B, Total Hydrocarbons as Methane	MIL-PRF-27401D, Para 4.4.2
1015	LN, Grade B, Oxygen	MIL-PRF-27401D, Para 4.4.2
1016	LN, Grade B, Hydrogen	MIL-PRF-27401D, Para 4.4.2
1017	LN, Grade B, Argon	MIL-PRF-27401D, Para 4.4.2
1018	LN, Grade B, Carbon Dioxide	MIL-PRF-27401D, Para 4.4.2
1019	LN, Grade B, Carbon Monoxide	MIL-PRF-27401D, Para 4.4.2
1020	LN, Grade B, Particulate	MIL-PRF-27401D, Para 4.4.3

METRIC

MIL-PRF-27401D  
3 October 1995  
SUPERSEDING  
MIL-P-27401C  
20 January 1975

## PERFORMANCE SPECIFICATION

### PROPELLANT PRESSURIZING AGENT, NITROGEN

This specification is approved for use by all Departments and Agencies of the Department of Defense.

#### 1. SCOPE

1.1 Scope. This specification covers the requirements for three grades and two types of nitrogen.

1.2 Classification. The nitrogen shall be of the following types and grades as specified (6.2):

1.2.1 Types. The types of nitrogen are as follows:

Type I - Gaseous

Type II - Liquid

1.2.2 Grades. The grades of nitrogen are as follows:

Grade A - 99.5 percent pure, aerospace practices

Grade B - 99.99 percent pure, space vehicle and cabin environment

Grade C - 99.995 percent pure

#### 2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to SA-ALC/SFSP, 1014 Billy Mitchell Blvd/STE 1, Kelly AFB TX 78241-5603, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 9135

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

must meet all specified requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

## 2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

### SPECIFICATIONS

#### DEPARTMENT OF DEFENSE

MIL-S-27626	- Sampler, Cryogenic Liquid
MIL-T-27730	- Tape, Antiseize, Tetrafluoroethylene, with Dispenser

### STANDARDS

#### DEPARTMENT OF DEFENSE

AN818	- Nut, Tube Coupling, Short
MS20819	- Sleeve, Flared Tube Fitting
MS33584	- Tubing End, Standard Dimensions for Flared

(Unless otherwise indicated, copies of the above specifications, and standards are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia PA 19111-5094).

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

#### AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 29	- Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
ASTM F 307	- Practice for Sampling Pressurized Gas for Gas Analysis
ASTM F 310	- Practice for Sampling Cryogenic Aerospace Fluids

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia PA 19103-1187.)

#### COMPRESSED GAS ASSOCIATION (CGA)

CGA G-10.1	- Commodity Specification for Nitrogen
CGA P-15	- Filling of Industrial and Medical Nonflammable Compressed Gas Cylinders

(Application for copies should be addressed to the Compressed Gas Association, Inc, 1725 Jefferson Davis Highway, Arlington VA 22202-4100.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

### 3. REQUIREMENTS

3.1 Grade requirements. The purity and impurity concentrations as applicable to each grade of nitrogen shall conform to the limits of Table I when tested in accordance with the applicable test method also specified in Table I. Other limits and tests may be specified by the procuring activity (see 6.2).

3.2 Limiting values. The following applies to all specified limits in this specification: For purposes of determining conformance with these requirements, an observed value or a calculated value shall be rounded off "to the nearest unit" in the last right-hand digit used in expressing the specification limit according to the rounding-off method of ASTM Practice E 29 for using Significant Digits in Test Data to Determine Conformance with Specifications.

#### 3.3 Filter.

3.3.1 Containers. A filter with no more than a 10-micrometer nominal and 40-micrometer absolute rating shall be installed between the manufacturer's plant system and the manifold used to fill the gas or liquid containers for delivery.

3.3.2 Pipelines. A filter with no more than a 3.5-micrometer nominal and 12-micrometer absolute rating shall be installed downstream of compressors and/or converters and as close to the user's interface as possible for delivery into pipelines. The filter shall remove all particles greater than 100 micrometers in any dimension.

#### 3.4 Filled containers (Type I only).

3.4.1 Pressure. Cylinders and tubes shall be within 99 to 100 percent of rated service pressure when tested as specified in 4.5.1 Pressure-Temperature Filling Charts in CGA P-15 may be used.

3.4.2 Leakage. Cylinders shall not leak when tested according to 4.5.2.

### 4. VERIFICATION

#### 4.1 Points of inspection (6.2).

4.1.1 Containers. Unless otherwise specified, acceptance tests shall be conducted at the site of filling prior to shipment or departure.

4.1.2 Pipeline. When Type I nitrogen is delivered in pipeline, acceptance tests shall be conducted immediately prior to entering the user's system.



TABLE I. Grade limits for nitrogen

	Grade			Test Method
	A	B	C	
Purity <sup>a,*</sup> , % by vol, min	99.5	99.99	99.995	4.4.1
Impurities, ppm by volume, max	5000	100	50	d
Water	26.3	11.5	5.7	4.4.2
Total hydrocarbons as methane	58.3	5.0	5.0	4.4.2
Oxygen	5000	50	20	4.4.2
Hydrogen	b	b	0.5	4.4.2
Argon <sup>f</sup>	b	20	2	4.4.2
Carbon dioxide <sup>f</sup>	b	5	5	4.4.2
Carbon monoxide <sup>f</sup>	b	5	5	4.4.2
Particulate <sup>c, g</sup> , mg/L, max	1.0	1.0	1.0	4.4.3
a. Percent nitrogen includes trace quantities of neon, helium, and small amounts of argon. b. No limit for this grade. c. Applies only to Type II (Liquid) nitrogen. d. Sum of all percentages of water, hydrocarbons, oxygen, and, if applicable, hydrogen, carbon monoxide, carbon dioxide, and argon. e. If direct method is required, use the alternate method 6.3. f. If required by contract. g. The particulate limit may be removed by the procuring activity (6.2).				

4.2 Conformance inspection. Quality conformance tests shall consist of the following:

- a. Individual tests (Type I only) . . . . 4.2.1
- b. Sampling tests . . . . . 4.2.2

4.2.1 Individual tests (Type I only). Each container (cylinder or tube) shall be subjected to the following tests as described under 4.5:

- a. Filling pressure . . . . 4.5.1
- b. Leakage . . . . . 4.5.2

4.2.2 Sampling test. The number of nitrogen containers shall be selected in accordance with Table II and subjected to the tests required by Table I.

TABLE II. Sampling for test

Number of containers in lot	Number of containers to be sampled
1	1
2 - 40	2
41 - 70	3
71 - over	4

4.2.3 Lot. A lot shall consist of one of the following:

a. The nitrogen produced in not more than 24 consecutive hours from a continuous process which is used to fill shipping containers directly from the process output. A continuous process shall be the production of product by continuous input of raw materials and output of finished product by one manufacturer in one plant with no change in manufacturing conditions or materials.

b. The nitrogen from individual runs of a batch process which is used to fill shipping containers directly from the process output. A batch process shall be the production of product by runs from single additions of raw materials which are reacted and purified forming the product.

c. The nitrogen from either or both the continuous and batch processes which is held in a single storage tank and subsequently withdrawn to fill shipping containers. The product shall be homogeneous at the time of withdrawal and shall not be added to while being withdrawn. After each addition to the storage tank, the contents shall constitute a separate lot.

4.2.4 Sample. Each sample shall be of sufficient size to conduct all the quality conformance tests as specified herein. Unless otherwise specified, the quality conformance tests shall be made of each required sample (6.2). When required, an equivalent sample shall be forwarded to a laboratory designated by the procuring activity for testing.

4.2.4.1 Samplers. The sampler for Type I (gaseous) nitrogen shall be a small compressed gas cylinder. The sampler for Type II (liquid) nitrogen shall be in accordance with MIL-S-27626 or functionally equivalent thereto. The liquid samplers convert the entrapped liquid to gas. The aliquots taken for analysis are representative samples.

4.2.4.2 Sampling methods. Unless otherwise specified (6.2), Type I (gaseous) nitrogen shall be sampled in accordance with ASTM F 307 and Type II (liquid) nitrogen shall be sampled in accordance with ASTM F 310 except for the following changes: Replace paragraph 5.1 with "5.1 Ensure that the outlet of the sampling port is clean." Replace paragraph 6.1 with "6.1 Ensure that the outlet of the sampling port is clean."

4.2.5 Cylinders. The number of cylinders (high pressure and cryogenic types) filled with Type I (gaseous) or Type II (liquid) nitrogen selected for sampling from each lot shall be in accordance with Table II. The first and last cylinders to be filled within a given lot shall be sampled. Other samples may be selected at random. The nitrogen from each cylinder sampled shall constitute a separate sample. For the purpose of selecting sample cylinders only, any one cylinder may be selected from a group of cylinders filled simultaneously from a single manifold.

4.2.6 Bulk transports. A sample shall be taken from each portable tank, cargo tank, or tank car filled with Type I (gaseous) or Type II (liquid) nitrogen.

4.2.6.1 Continuous service (6.6.1). Unless otherwise specified by the procuring activity, the following sample option for nitrogen shall be used for storage and transport tanks engaged in continuous nitrogen service (6.2). Contractor shall sample the contents of each transport tank engaged in continuous nitrogen service at least once every seven days at uniform intervals of time. Samples shall be taken from the filled transport tanks. Contractor shall sample the contents of each transport tank when entering continuous service and when the transport tank has remained empty for a period greater than 24 hours. When empty, all ports and vents shall remain closed to the atmosphere. While in continuous service, compliance with quality conformance tests specified herein shall be determined by sampling the filling point storage tank after each addition or, in case of continuous production, at established intervals not less frequent than once every 24 hours. When a storage tank is being filled during a change of duty shift, sampling shall be performed after filling.

4.2.7 Pipelines. Unless otherwise specified in the contract, the following sampling plan shall be used for pipelines: Sampling to determine specification compliance shall be accomplished by drawing liquid phase samples from each filled container transporting liquid for conversion to gas and by drawing samples from the gas supplied into the user's system (6.2).

4.2.7.1 Liquid phase samples. Liquid phase samples shall be tested for each parameter in applicable grade of Type II nitrogen. Sampling under the "continuous service" provisions can be applied.

4.2.7.2 Gas phase samples.

a. Samples shall be tested for each parameter in the applicable grade of Type I nitrogen. Samples shall be drawn in accordance with 4.2.4 from a point immediately prior to entering the user's system. The frequency of sampling shall not be less than once every seven days at regular intervals.

b. When specified in contract, in-line samples shall be drawn and tested with continuous monitors for each parameter specified in contract for the applicable grade of Type I nitrogen. Each analyzer shall be equipped with a permanent recording device. When specified in contract, an alarm system to indicate contaminant contents in excess of specified maximum shall be provided (6.2).

c. After internal exposure of the pipeline to the atmosphere or other foreign materials, a sample of gas shall be taken from the pipeline prior to delivery into the user's system at a point between the final filter and the

interface with the Government system. The sample shall be tested for each parameter in applicable grade of Type I nitrogen. After cleaning operation, the sample shall be tested also for contamination by vapors from the cleaning materials.

4.2.8 Other containers (6.2). Unless otherwise specified, other containers of 400 liters or less water capacity shall be sampled in accordance with 4.2.5. Containers greater than 400 liters water capacity shall be sampled in accordance with 4.2.6.

4.3 Rejection. When any sample tested in accordance with 4.4 fails to conform to the requirements specified herein, the entire lot represented by the sample shall be rejected. Unless otherwise specified, disposition of rejected product shall be specified by the procuring activity (6.2).

4.4 Analytical procedures. Unless otherwise specified, samples shall be analyzed according to the procedures described below (6.2). Calibration gas standards may be required to calibrate (zero and span) analytical instruments used to determine the purity and impurity contents of the nitrogen. The accuracy of the calibration gas standards is to be traceable to the National Institute of Standards and Technology.

4.4.1 Nitrogen content. The nitrogen content in percent shall be found by determining the aggregate impurities by the methods described in succeeding sections. The percent nitrogen is the value obtained when this amount, expressed as volume percent is subtracted from 100.

4.4.2 Gaseous contaminants. Methods shall be selected from those of CGA G-10.1.

4.4.3 Particulate content. A filter holder assembly, (Gelman part No 4250X), or equivalent modified as shown on Figure 1 shall be attached to the withdrawal line of the vessel to be utilized to fill the tanks. A preweighed filter paper (Gelman 47 mm glass fiber paper, type A/E or equivalent) shall be placed on top of another filter of the same kind. The filters shall then be placed on the porous filter support, which, in turn, shall be placed in the filter holder as shown in Figure 1. The male threads of the filter holder shall be wrapped with thin, nonadhesive-backed polytetrafluoroethylene tape MIL-T-27730 to prevent galling of the threads. The holder shall be tightened by hand as tight as possible to prevent bypassing of the filter element. The discharge liquid from the filter housing shall be collected in a clean, uninsulated, ambient temperature vessel marked to indicate when 5 liters of liquid have been collected. The liquid flow shall be terminated when 5 liters of liquid have been collected. The filter holder shall be removed from the line and permitted to reach ambient temperature. The warmup to ambient temperature may be expedited by use of an oven or other heat source. Care shall be exercised to ensure that any airflow which enters the unit will be directed through the inlet of the assembly to prevent displacing any particles from the surface of the filter. Upon warmup, the other side of the holder shall be wiped with a clean cloth and the holder then disassembled. The filter paper shall be closely inspected. The test shall be repeated if evidence of either (a) the filter not being securely clamped by uniform depression of its edge; (b) the filter having been cut by the holder; or (c) when dirt particles are detected in the clamped area indicating bypassing had been encountered. The test shall also be repeated when either the bottom filter shows any discoloration or when leakage of liquid from the filter



holder is detected. Upon completion of a valid test the filter shall be removed from the housing and weighed to the nearest 0.1 mg.

#### 4.5 Containers of Type I nitrogen.

4.5.1 Filling pressure. Samples shall be tested for proper filling pressure by attaching a calibrated Bourdon-tube gauge or equivalent to the valve outlet and by attaching either a thermocouple or thermometer to the container wall. The gauge shall have scale divisions not greater than 100 kPa (15 psi). If a thermometer is used, tape or putty shall be applied to the bulb to protect it from extraneous temperatures. Putty shall not be applied between the bulb and the cylinder wall. The thermometer shall have scale divisions not greater than 1°C (2°F). The containers shall be stabilized to ambient temperature. Then the valve shall be opened and the internal pressure observed on the gauge. If the internal pressure differs from the applicable pressure value by more than 100 kPa, the sample cylinder or tube bank trailer and all other cylinders or tube bank trailers filled from the same manifold at the same time shall be rejected.

4.5.2 Leakage. Each Type I nitrogen container shall be tested for leaks at the neck threads, stem packing, and safety device of the valve with leak-detection fluid. Valve seat leakage shall be tested after filling has been completed. This shall be done by applying the leak-detection fluid sparingly across the outlet of the valve. Only leak-detection fluid that leaves no residue shall be used on the outlet.

### 5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

### 6. NOTES

(This section contains information of a general or explanatory nature that may be helpful but is not mandatory.)

6.1 Intended use. The nitrogen covered by this specification is intended as a purging and pressurizing medium for rocket propellant systems, space vehicles and support equipment and for preparing oxygen-nitrogen mixtures for breathing purposes on board space vehicles.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of the specification.
- b. Type and grade of nitrogen required (see 1.2).

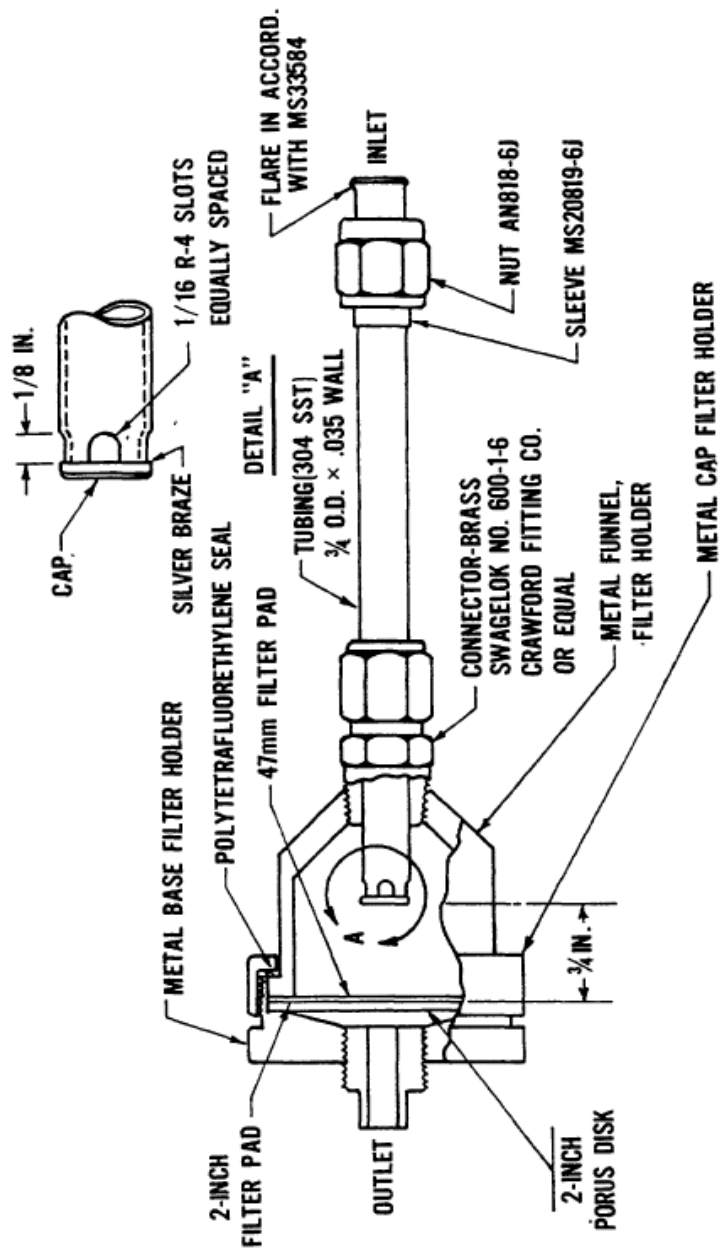


FIGURE 1. Filter, Cryogenic Liquids

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- c. Issue of DoDISS to be cited in the solicitation, and, if required, the specific issue of individual documents referenced (see 2.2.1 and 2.3).
- d. When other limits or tests are required (see 3.1).
- e. When testing for argon or carbon dioxide is required (see Table I).
- f. When the particulate test is not required (see Table I).
- g. When a variation in the points of inspection is required (see 4.1).
- h. When a variation of the quality conformance tests to be performed on a sample is required (see 4.2.4).
- i. When a variation to the sampling method is required (see 4.2.4.2).
- j. When a variation to the continuous service option is required (see 4.2.6.1).
- k. When a variation to the sampling plan for pipelines is required (see 4.2.7).
- l. When an alarm system to warn of contaminants in pipelines is required (see 4.2.7.2,b).
- m. When a variation to the 400 liter criteria for sampling is required (see 4.2.8).
- n. When a variation to the disposition of rejected product is required (4.3).
- o. When a variation of the analytical procedures is required (see 4.4).
- p. Packaging requirements (see 5.1 and 6.4).
- q. When color coding of pipeline is required (see 6.4,c).

6.3 Direct nitrogen method. When required either of two methods shall be used to determine the nitrogen content directly: (1) The gas chromatographic method which uses a 5A molecular sieve column and measures the peak height versus retention time. (2) The mass spectrometric method which measures nitrogen at an atomic mass unit (amu) of 28. Carbon monoxide also has an amu of 28 but it can be determined by other methods.

6.4 Packaging requirements. Guidance for cylinders may be found in the following documents:

- a. RR-C-901 - Cylinder, Compressed Gas, High Pressure, Steel DOT 3AA, and Aluminum Applications, General Specification For
- b. MIL-V-2/11 - Valve, Cylinder, Gas, Argon, Helium, Nitrogen, Neon and Xenon, (Inert-Oil Free), Outlet 581
- c. MIL-STD-101 - Color Code for Pipelines and for Compressed Gas Cylinders

- d. MIL-STD-1411 - Inspection and Maintenance of Compressed Gas Cylinders
- e. 49 CFR 171 - 199 - Code of Federal Regulations

6.5 Part or identifying number (PIN). The PINs to be used for nitrogen acquired to this specification are created as follows:

M 27401 - X X Example of PIN: M27401-2B

Grade (see 1.2.2).

Type (see 1.2.1). Use 1 for Type I; 2 for Type II.

Specification number.

Prefix for military specification.

6.6 Definition.

6.6.1 Continuous service. Continuous service applies to continuous deliveries under Government contract of nitrogen complying with the quality conformance tests specified herein.

6.7 Subject term (key word listing).

Aerospace  
Cryogenic  
Cylinders  
Nitrogen  
Pipeline  
Propellant  
Space vehicle

6.8 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians  
Army - MI  
Navy - AS  
Air Force - 68

Review Activities  
Air Force - 19

Preparing Activity  
Air Force - 68

Civil Agency Interest  
NASA

(Project 9135-0133)



## TRANSPORT EQUIPMENT DELAY CERTIFICATE

1. CONSIGNOR	2. CONSIGNEE	3. PRODUCT
4. CARRIER	5. TRAILER NUMBER	6. DATE SHIPPED
7. FREIGHT BILL NUMBER	8. GBL NUMBER	9. SEAL NUMBER

10. LOADING/UNLOADING INFORMATION					
	DATE RECEIVED	TIME		DATE RECEIVED	TIME
A. ARRIVED			D. FINISH		
ACCEPTED FOR B. LOADING/UNLOADING			E. UNIT RELEASED		
C. START			F. TOTAL HOUR HELD		

11. REASON FOR DELAY *(Make a complete statement adequately describing each segment of delay, amount of time on each delay, and whether delay was responsibility of carrier or consignee/consignor)*

12. DETENTION CERTIFICATION STATEMENT: I certify that the above information is true and correct to the best of my knowledge.

SIGNATURE AND TITLE OF CONSIGNEE	SIGNATURE AND TITLE OF SHIPPER	SIGNATURE OF DRIVER
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13. NOTE TO CARRIER: A copy of "Vehicle Delay Certificate" must accompany each detention invoice to provide documentation for invoice certification and payment.